

22 August, 2001

MODIS sensor Working Group (MsWG) Summary

Attendance: Bill Barnes, Bruce Guenther, Chris Moeller, Eddie Kearns, Eric Vermote, Gary Toller, Jack Xiong, Jim Young, Roger Drake, Stuart Biggar, Suraiya Ahmad, Wayne Esaias, Zhengming Wan, Gwyn Fireman, Vincent Chiang

Correction for August 15: Input for Wan should read “Our field campaign in Walker Lake, NV, missed aircraft flight opportunities on Aug. 13 and 15 when we conducted field measurements in clear-sky conditions. Next opportunity of aircraft flight is Friday (Aug. 17).”

Scheduled Items

TEB Response Trending (Recent A-side Behavior)

- Plots for recent values of b1 vs. scan, b1 vs. time since launch, and NEdT are all consistent with earlier behavior.
- There are no TEB degradation issues.
- NEdT for Band 34 center channels went out of spec on side B in August 2000 after outgassing the radiative cooler.

FM1 SC TV at TRW update (Roger)

Spacecraft-level thermal vacuum tests at TRW have not yet begun. TRW is having trouble with pre-TV testing of other instruments. Vacuum chamber door will likely close within a week.

STM Workshop Agenda (09/24/01)

- Calibration Workshop formal presentations are scheduled for four hours in the afternoon
- Will try to arrange three hours of optional discussion after dinner.
- Vermote requested adding an outline of future MCST work.
- Detailed backup charts will be included in presentation package.
- If analysis of the first TV plateau is not complete by the time of the workshop, MCST will report on test plans.

Action 0108-03: Reserve more time at conference room to accommodate extended discussion.

Around the Table

Barnes:

Several PFM formatter resets have occurred in the last week. Software loaded in November 2000 was successful in bypassing resets, so there was no data interruption. SBRS is monitoring formatter performance to determine if there is any trend.

Xiong:

- Steve Platnick is on travel in Africa for the next two weeks.
- Discussion of the SMIR crosstalk issue is postponed to the calibration workshop.

Vermote:

Observed premature saturation in one Band 5 detector on Side A; this detector did not saturate when operating on Side B. Could behavior be related to current ITWK/VDET setting of 79/190? Suggests obtaining 1 or 2 orbits of EV data at ITWK/VDET of 79/110. (No objections from participants).

Action 0108-04: Request approval from the MODIS Technical Team to collect two orbits of EV data at ITWK/VDET of 79/110; if approved, schedule test.

Esaias:

Q: Is there any possibility of any tests to help evaluate whether MODIS would operate better on B-side components?

A (from Barnes): Since A-side is operational and giving satisfactory performance, MODIS management will be reluctant to go to B-side components.

Kearns:

- Derived A-side correction parameters; results are mostly favorable, but some work is still needed. Will discuss analysis in detail next week.
- Processing A-side data using modified B-side parameters yields satisfactory SST and SER products. Previously, MS difference had been up to 0.4%, now removed. After verifying a whole day of data as good, will send parameters to SDST to incorporate in products. (Esaias notes that no product changes can be made in the next three months due to consistent-year processing requirements).
- Some Mirror Side and RVS issues still remain.

Moeller:

- Derived detector dependent SWIR crosstalk influence coefficients for Band 5 into Band 26. Early testing is favorable: striping is reduced by an order of magnitude for both clear and cloudy scenes when coefficients are applied to Band 26. Will continue testing on more granules; results will be presented at the Calibration Workshop.
- Wisconsin plans on implementing this correction in the MODIS cloud mask. Moeller will make the correction algorithm and coefficients freely available after testing is complete.

Biggar:

Q: Referring to MS ratio charts from A-side SRCA, presented last week: Why is the mirror side ratio changing?

A: Mirror sides were coated in separate runs; slight differences in initial coating may result in degradation differences. Similar MS ratio trend has been seen with Solar Diffuser data, and validated with lunar data.

Wan:

- Visual comparison of global temperatures from A-side and B-side look good. Has ordered data to make a more detailed comparison.
- ER-2 with MASTER and AVIRIS flew over Walker Lake, NV, on Aug. 17.

Drake:

Preparing SDSM rework plans for FM1.

Action 0108-05: Perform SDSM uncertainty analysis modeling runs, per SBRS' email request.

Ahmad:

- Processing day 115 for Level 1B.
- Processing day 111 for higher-level products.

Toller:

- Research code crosstalk correction +functionality has been tested; L1B results and analysts' IDL results match to within 0.5% - and that difference is understood.
- Gwyn Fireman will remain at MCST, but will not take MsWG minutes after this week.

Compiled by G. Fireman 23 August, 2001